

A conversation with Fortify Health, April 25, 2018

Participants

- Brendan Eappen – Co-Founder, Fortify Health
- Nikita Patel – Co-Founder, Fortify Health
- James Snowden – Research Consultant, GiveWell

Note: These notes were compiled by GiveWell and give an overview of the major points made by Mr. Brendan Eappen and Ms. Nikita Patel.

Summary

GiveWell spoke with Mr. Eappen and Ms. Patel of Fortify Health as part of its investigation into a potential GiveWell Incubation Grant to Fortify Health. Conversation topics included Fortify Health's plans to advocate for mandatory iron fortification, the logistics of working with flour mills, and how Fortify Health will assess its performance over the course of its first year.

Prioritizing states to work in

Fortify Health is working to identify high-priority geographical areas in which to implement its interventions. These will be areas in which:

- People are highly vulnerable to iron deficiency
- There is unlikely to be effective action of this kind by other organizations
- Advocating for mandatory fortification of flour is tractable

Fortify Health is primarily looking at states in the north of India, where wheat is the primary staple consumed.

Key indicators

Fortify Health will consider the following when determining which areas are high-priority:

- Consolidation of the flour industry: the proportion of wheat flour that is produced in an industrial or centralized environment (as opposed to chakki mills, which tend to be decentralized and not the target of Fortify Health's intervention)
- The amount of flour consumed in the area
- The reachable population
- Anemia, iron deficiency, and other health indicators
- The activities of other actors

Activities of other actors

Fortify Health is working to understand the activities of other actors, to ensure that its work will have maximal counterfactual impact. It plans to speak with other non-governmental organizations (NGOs) about their pre-existing relationships with milling conglomerates and individual millers, to determine whether it may have

greater success working within a particular state, within a particular political environment, or through particular industrial relationships.

Tractability of advocacy

Fortify Health believes that it will be most effective if it combines direct fortification and advocacy work. It anticipates that the tractability of the advocacy strategy will be more relevant to state-level prioritization than the variance in opportunity for direct fortification, because it expects states to look similar on the key indicators mentioned above, but to vary substantially with regards to the tractability of its advocacy work.

Political advocacy

Outsourcing advocates

Because Mr. Eappen and Ms. Patel do not have firsthand experience working on advocacy in India, they expect that they would outsource advocates. This could mean collaborating with existing organizations, or hiring someone to take on this work.

If Fortify Health hires someone, it would be useful for that person to have connections with policymakers, because the political climate in India can be difficult to navigate due to high turnover in state-level government positions. Mr. Eappen and Ms. Patel do not believe that a person would need to be an expert in micronutrient fortification in order to be a good fit for this role, as long as the person is a fast learner.

Working with the government

Fortify Health's advocacy work would be done at the state level, rather than at the national level. In the central government, the Food Safety Standards Authority of India (FSSAI) has precedence in the domain of micronutrient fortification, and the FSSAI is nested under the Ministry of Health and Family Welfare. State governments are structured similarly to the central government in some ways, but at the state level there are multiple targets for advocacy work for health interventions.

Fortification nominally falls in the domain of state health boards, but in practice, organizations that have done advocacy work for micronutrient fortification in India advise working across multiple government departments, because otherwise it is easy for fortification to become a siloed issue. They suggest convening a coalition of people from various offices to work together on the issue. For Fortify Health's project, this would likely include departments of health, finance, and agriculture, as well as the milling industry and its lobbyists.

Potential advocacy targets

Fortify Health is considering several options for policies to advocate for, and plans to choose the one that turns out to be most tractable.

Mandatory fortification of mass-produced wheat flour

Ideally, the Indian central government would mandate that all wheat flour produced in mills above a certain size must be fortified, and NGOs could establish a strategy to enforce this mandate. However, Fortify Health currently believes that working within a particular state will be more tractable than trying to effect change at the central government level.

Fortification of wheat flour in mid-day meal schemes

Fortifying the wheat flour that is distributed via mass mid-day meal schemes is likely the most tractable approach, because it is a smaller sector of the market and because there is widespread support for interventions to improve children's nutrition.

Fortification through the Public Distribution System (PDS)

The Public Distribution System (PDS) is a large government scheme; about 50% of Indians nationally and up to about 70% in some states are eligible, though coverage is likely lower. Because there is already centralized control of this scheme, it might be easier to enforce fortification in PDS than on the open market.

One challenge of working within PDS is that the central government specifies the amount of the wheat staple that people are entitled to by weight, and in most states PDS distributes whole grains rather than wheat flour. This leads to conflict when states distribute wheat flour, because people expect the same weight in flour as they would get in whole grains, but the government wants to provide a somewhat lower weight to account for losses in the process of converting the grains to flour.

When the government of Gujarat tried providing flour instead of whole wheat several years ago, this conflict eventually led to political backlash that forced the system to revert to providing whole grains. In Haryana there have recently been successful attempts to change policies so that PDS distributes wheat flour rather than grains, but it remains to be seen whether these changes will last.

Working with mills

Initiating partnerships

Identifying mills to work with

Depending on where it decides to work, Fortify Health may seek partnerships with milling companies, individual millers, or both. It may make sense for Fortify Health to start by partnering with a conglomerate that oversees several mills, as this could be administratively simpler.

Fortify Health may also want to prioritize working in mills that are geographically close to one another, which may help to saturate the market such that beneficiaries purchasing flour from multiple mills receive a more optimal dose of fortified flour.

Approaching mills

Rather than approaching potential partners alone, Mr. Eappen and Ms. Patel plan to hire someone who has appropriate experience and will be seen as a credible partner by mill directors and managers. Fortify Health will prepare this person to approach mills by working with them to gain expertise in the milling industry and in the process of fortification. After gaining this expertise, this person will go through formal channels to request meetings with millers and present them with information about Fortify Health's project.

Convincing mills of the benefits of fortification

Government support

Fortification currently has momentum on the national stage in India, and the central government openly supports micronutrient fortification as an effective health intervention. Fortify Health will work to demonstrate the government's support to potential partners.

Economic benefits

As the market for iron-fortified flour evolves and consumer demand rises, mills could see large economic benefits if they take advantage of the free equipment, premix, and support provided by Fortify Health. Fortify Health might put potential partners in contact with millers that are already doing fortification, in order to demonstrate the economic benefits that can come from sustaining fortification over the long term.

Securing partnerships

After generating buy-in, Fortify Health will work to ensure that mills have a clear understanding of what the installation of dosers entails, and will work with millers to sign a memorandum of understanding (MOU), and to ensure that they appoint the relevant people within their mills to support any necessary process changes.

Ownership of equipment

When devising the MOUs, Fortify Health will be very transparent that it may not have funding after a year, and as such will be very clear about what will happen to any investments it makes if the project ends. Fortify Health plans to have the mills assume ownership of the equipment, as well as responsibility for its removal if necessary. This is what has been done in the past when other fortification projects have ended.

Though most mills discontinue fortification after the end of a project, Fortify Health suspects that some of these mills repurpose the equipment for other parts of their production process, e.g. using dosers to add bleaching agents to the flour. Fortify Health does not believe that it is costly for mills to dispose of the equipment if they wish to do so.

Planned activities to support fortification in mills

Quality assurance

All mills have existing quality and safety assurance practices with which they evaluate their processes. Fortify Health will work with the people in charge of quality and safety assurance at each mill so that they accommodate any additional necessary work, including:

- making sure that premix can be continuously loaded into dosers,
- verifying that fortification is taking place and appropriately dosed, and
- ensuring the quality and safety of the fortification process.

Operations support

Fortify Health has budgeted for an operations grant in case fortification activities cause mills to incur additional staffing needs, but Fortify Health predicts that these needs will be very minimal. It is possible that any extra work in the mills could be done directly by Fortify Health's milling industry contractor, especially while the scale of the project is small.

Supplying premix

Fortify Health will secure the supply chain of the premix, and ensure that it is delivered directly to the mills at a rate which is both appropriate to their production and suitable for their premix storage capacity.

Testing flour for iron

Once its partner mills are producing fortified wheat flour, Fortify Health will conduct spot checks to test the flour for iron. For these spot checks, it will randomly sample flour from both the market and the mill itself.

A rapid test for the presence of iron is the easiest way to determine whether or not fortification is taking place at all. To determine the precise concentration of iron in the product, Fortify Health would need to use mass spectrometry, but this is a more expensive test and it is up for debate whether it makes sense for Fortify Health to do mass spectrometry at this early stage or only at the later stages.

Update: Since the conversation, Fortify Health has investigated spectrophotometry as a less expensive alternative.

Assessing iron deficiency in the population

Fortify Health can measure whether its fortification program is having the desired effect on the population by conducting blood tests to assess people's iron deficiency status. It has the capacity to look at the following indicators:

- **Hematocrit** – the ratio of the volume of red blood cells to the total volume of blood

- **Hemoglobin concentration** – the amount of iron-bearing, oxygen-carrying protein within red blood cells
- **Serum ferritin** – the major iron storage protein in the body

Fortify Health does not expect that it will look at these indicators in the first year, but it would test for them if it conducted a randomized controlled trial (RCT) to assess the impact of its work, which it may do in its second or third year.

Self-assessment

Indicators of success in the first year

Mill partnerships

Over the course of its first year, Fortify Health plans to use the number of mills that it has successfully begun partnerships with as an indicator of its performance. At different stages, it will look for roughly the following milestones:

- **Early indicator:** Having an MOU signed
- **Mid-stage indicators:** Installation of equipment and beginning fortification
- **Late-stage indicator:** Operational fortification

Fortification process

Fortify Health will also measure its performance using process indicators, such as:

- The amount of provided premix that is consumed
- The number of days microdosers are in operation
- The portion of flour produced that is reported being fortified

Fortify Health could further check whether fortification is truly happening by executing spot checks, using mass spectrometry or spectrophotometry to test the iron levels in the mills' flour, and looking at health status indicators in the population after fortification has been happening for several months.

Things that could potentially deter Fortify Health from continuing its work

Low mill uptake

Low mill uptake would be the biggest deterrent for Fortify Health, because it would prevent effective implementation.

Fortify Health's goal for the first year is to begin fortification in five mills. If it is unable to begin fortification in any mills, it will take that as a clear indication that it should either shut down the project or radically change its approach. If it is able to begin fortification in some mills but not in five, it will work with GiveWell to figure out why that is the case.

Challenges in moving money into India

NGOs have been experiencing difficulties moving money into India. Being unable to get money into the country would be a substantial obstacle that might result in Fortify Health shutting down its program. Fortify Health will work to overcome this problem in its first few months.

Bureaucratic obstacles

In addition to the ordinary logistical challenges of formally registering as an NGO in India, foreign aid organizations must be approved by bureaucrats, creating an extra hurdle. For Charity Science Health (CSH), an organization similar to Fortify Health that is doing a similar kind of work, bureaucratic obstacles have meant that getting registered as an NGO has been a much longer and more complex process than expected. Though this has caused some delays, CSH has been able to successfully work around many of the logistical challenges, and has not been prevented from hiring staff or executing its project.

Mandatory fortification

Arguably, Fortify Health's work would no longer be necessary if the areas in which it was working introduced mandatory fortification standards. However, it is extremely unlikely that this will happen within the next few years, especially for flour, which is expected to be the most challenging staple food for which to establish mandatory fortification standards because of the lack of consolidation in the flour industry. Fortify Health believes that expecting the implementation of mandatory fortification standards within two years is extremely optimistic, and that even expecting it within ten years is optimistic.

In addition, even if fortification were mandated, it is likely that there would still be many opportunities to support the industry and the state.

Activities of other actors

If other organizations began fortifying flour with iron in areas where Fortify Health was working, Fortify Health might discontinue its program in those areas to avoid interfering with others' work.

Logistical challenges

If Fortify Health becomes operational but encounters logistical challenges such as premix stockouts, fluctuating costs, or political backlash, it will likely consider shutting its program down.

All GiveWell conversations are available at <http://www.givewell.org/conversations>